GUMMY BEARS® INVADE SOLAR SYSTEM!

Instruction Page

How far apart are the planets in our solar system? How large are they? How do forces keep it all together? To make the huge distances easier to visualize, you will be building a scale model. Scientists use a scale called the AU, or Astronomical Unit, to measure large distances. One AU equals the distance from Earth to the sun (Sol), or 149,600,000 km. Let's make a scale model using something you know well. Let Gummy Bears® take over *your* solar system!

1. Let's say the length of a Gummy Bear® = 1 AU = 149,600,000 km. To create your Gummy Bear® scale model, divide each planet's distance from Sol by 149,600,000 km. This answer (**PLEASE** round to the nearest tenth,) goes in the left "Gummy Bear® scale distance" column.

2. Subtract the "Gummy Bear® Scale Distance" answer from the answer just below it on the table. Write it down in the right "Gummy Bear® scale distance" column. This answer is equivalent to the portion of Gummy Bear® that you will use. So cut or tear your Gummy Bears® to the correct length using that answer. Then line them up left to right across the middle of your paper, head to toe. Make sure you put a small mark on your paper where each planet's orbit will go.

3. Draw lines on your paper from top to bottom in between the Gummy Bears®. The lines will represent the orbit of each planet. Label neatly each orbit with the name of the appropriate planet.

4. Divide each planet's diameter by Earth's diameter (12,756 km) and put your answer in the " Gummy Bear® scale diameter" column (**PLEASE** round to the nearest tenth**!)** Use this column's answers to make a scale drawing of each planet. Let each answer be the diameter of each planet in centimeters. Use a compass and ruler to draw and label each planet on their appropriate orbits. Color them and make them look cool! Now eat and enjoy your Gummy Bears® and any extra you have!